

# An empirical study of early childhood support through partnership building



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## ABSTRACT

The first five years were recognized as a critical period of child growth. Accordingly, California voters approved tobacco tax through [Proposition 10](#) to fund early childhood services since 1998. Due to the state revenue decline, *Service Integration* has been advocated to enhance program supports in *Child Health, Family Functioning, and Child Development*. In this study, interview data are analyzed to examine the partnership building among 40 programs. The results indicate a significant impact of the service outreach across remote communities in Kern County, California. In addition, contextual information is provided to facilitate interpretation of the partnership strength from a social network analysis. Enhancement of this investigation is discussed in light of future development.

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## 1. An Empirical Study of Early Childhood Support Through Partnership Building

Scientific discoveries revealed the importance of brain growth during first five years of child life ([Bruner, 2009](#)). In 1998, California voters passed Proposition 10 that appropriated a 50-cent-per-pack tax on cigarettes and other tobacco products to fund programs in early childhood service. Due to smoke cessation, the state revenue has been shrinking since 2000 ([First 5 Association of California, 2015](#)). Consequently, sustainability of the local services is challenged by the funding decrease.

Meanwhile, California has been listed among the top three states responsible for nearly half of the population growth in the U. S. ([Mather, 2015](#)). The service demand is even stronger within the California Central Valley, as illustrated by a high birth rate in Kern County ([First 5 Association of California, 2014](#)). In particular, Kern County has been ranked among the lowest regions in adult education across the United States ([Brookings Institution, 2010](#)). At the county seat, [Zumbrun \(2008\)](#) concurred that Bakersfield was ranked as one of the least educated metropolitan areas across the

U.S. Due to the recent economic recession, “Health and human services programs that serve children are among the most seriously affected by this lack of funding” ([California Assembly Committee on Budget, 2011, p. 1](#)). Consequently, poverty-stricken areas need more healthcare support for young children. It was reported that “Among Kern County families whose householder had less than a high school diploma, 36.5% lived in poverty” ([Kern County Network for Children, 2014, p. 8](#)). Hence, program collaborations were called for to amend the service gaps that were essential to early childhood development.

While it took more resources to deliver services in remote areas ([Waller, 2005](#)), the state investment was based on the proportion of live birth, which caused inadequate support in rural counties. Research literature also indicated that “developmental research has rarely explored associations between urbanicity and children’s development” ([Miller & Votruba-Drzal, 2013; p. 234](#)). Therefore, a purpose of this research is to fill this void by examining the partnership building across different communities of Kern County. As [Resnick \(2012\)](#) pointed out,

An important goal of First 5 funding is to act as a catalyst for change in each county’s systems of care. . . . Increases in coordination and collaboration would indicate that agencies are better able to share resources and clients, reduce redundancies and service gaps, and increase efficiency. (p. 1) Due to the emphasis on

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program coordination and collaboration, this investigation is designed to examine network connections for enhancement of the systems of care.

**2. Literature review**

“Too often child health is viewed as separate and distinct from early childhood care and learning” (Bruner, 2009, p. 1). To address this issue of disconnection, it was stipulated by Proposition 10 that “No county strategic plan shall be deemed adequate or complete until and unless the plan describes how programs, services, and projects relating to early childhood development within the county will be integrated into a consumer-oriented and easily accessible system” (p. 10). The need for systematic support has been an integral part of the capacity building in Kern County.

**3. Significance of this investigation**

Since its inception, the Kern County Children and Families Commission (First 5 Kern) has administered more than \$160 million in the first three focus areas (First 5 Kern, 2015). In 2014–15 alone, more than \$10 million was invested to fund 13 programs in *Child Health*, 17 programs in *Family Functioning*, and 10 programs in *Child Development* (Wang, 2015). According to the state commission, “While counties design their programs to fit their specific local needs, they must provide services in each of the following four focus areas: Family Functioning, Child Development, Child Health, [and] Systems of Care” (First 5 California, 2013, p. 15).

To promote the local creativity, a model of Outcome-Based Accountability (OBA) was adopted by Proposition 10 to monitor program effectiveness. Friedman (2011) indicated that “OBA keeps population accountability separate from performance accountability” (p. 4). While performance accountability is important at the program level to justify service outcomes, population accountability ensures improvement of the overall child wellbeing in different communities. At the county seat, the urban population in Bakersfield has surpassed the size of well-known cities like St Louis in the 2010 census. However, as the third largest county in California by land areas, Kern had most residents lived in valley, mountain, and dessert communities across a remote area as large as the state of New Jersey. Waller (2005) observed that “In rural areas, public transportation options are scarce and have limited hours of service” (p. 2). Hence, collaboration is needed to strengthen the equity of service access across different communities.

**4. Theoretical framework on partnership classification**

In examining partnership building, Cross, Dickman, Newman-Gonchar, and Fagen (2009) noted that “Existing research has demonstrated that two primary features of networks, network

structure and the strength of ties, have distinct effects on outcomes of interest” (p. 311). For a service network involving 40 programs, each program may collaborate with the remaining 39 partners. Thus, the complexity can be illustrated by a network structure that includes a total of 1,560 (or 40 × 39) links.

Unfortunately, “Evaluating interagency collaboration is notoriously challenging because of the complexity of collaborative efforts and the inadequacy of existing methods” (Cross et al., 2009, p. 310). Besides the multilevel structure in which programs were grouped within focus areas, no model has been unanimously accepted by the research community to assess partnership strength. Project Safety Net of Palo Alto (2011) synthesized past literature and suggested a five-level model for network categorization. Wang (2014) examined these categories and found them not mutually exclusive. In that model, “formal communication” was featured as a characteristic for a *Cooperation* category. Because communications could be described as frequent, prioritized, and/or trustworthy, it remained unclear whether a partnership should be placed in multiple categories that feature the same characteristics. The ambiguity undermined feasibility of using the model to assess network capacity.

Opposite to the lack of mutual exclusiveness was an issue of incomprehensiveness. For example, it was indicated in an annual evaluation report of First 5 Fresno (2013) that

During this time period the coordination and collaboration (highest levels of interaction) decreased from 42% to 38%. It is speculated that decrease in direct funding, staff turn-over, and other economic pressures resulted in organization becoming more insular thus decreasing their collaboration with other organizations. (p. 102)

Treating *coordination* and *collaboration* as the highest levels of interaction might have inadvertently left no room for partnership improvement. Consequently, the Fresno model imposed two problems for the network analysis: (1) it did not conform to Bloom’s taxonomy that labeled creation above integration (Airasian and Krathwohl, 2000), and (2) It downplayed adequacy of *Co-Existing* partnerships for program referrals. Consequently, Fresno’s model seemed too simplistic to describe the capacity of service integration in local communities.

To enrich the existing knowledge, this research is based on a 4C model (Co-Existing, Collaboration, Coordination, Creation) to conceive service integration in the context of institutional learning. The model has literature support from a well-established SOLO [Structure of the Observed Learning Outcome] taxonomy (Atheerton, 2013; Biggs & Collis, 1982). In particular, four levels of learning outcomes were specified in the SOLO taxonomy beyond the initial pre-structural category (see Smith, Gorden, Colby, & Wang, 2005). Each level has been clearly defined with specific benchmarks.

In Table 1, a one-to-one match has been established to illustrate a clear alignment between the SOLO taxonomy for individual learning and the 4C model for program improvement. Following the SOLO template, the 4C model is both comprehensive and

**Table 1**  
Alignment Between SOLO Taxonomy and the 4C Model.

SOLO	The 4C Model
Uni-Structural: Limited to one relevant aspect	Co-Existing: Confined in a simple awareness of co-existence
Multi-Structural: Added more aspects independently	Collaboration: Added mutual links for partnership support
Relational: United multiple parts as a whole	Coordination: United multiple links with structural leadership
Extended Abstract: Generalized the whole to new areas	Creation: Expanded capacity beyond existing partnership

mutually exclusive. The model was also field-tested to report partnership strength at *Co-Existing*, *Collaboration*, *Coordination*, and *Creation* levels in First 5 Kern's annual reports to the state (Wang, 2013, 2014). Therefore, the 4C model is employed in this investigation to support analyses of the network strength.

In summary, the state statute expected county commissions to serve “as the ‘glue’ to bring services together and fill critical gaps that no other funding source is able to address” (First 5 Association of California [F5AC], 2009, p. 7). Through an extensive literature review, the 4C model was developed to assess program improvement in service integration. With clear categorizations of the network strength, the new paradigm has been adopted as a useful tool to examine progress in the local capacity building: (1) it classified different kinds of partnership structure to delineate program accountability, and (2) it differentiated the strength of network connection to support service improvement.

## 5. Program background for integrated services

According to Tom Angelo (1999), former director of the national assessment forum, “Though accountability matters, learning still matters most” (¶. 1). To sustain the process of institutional learning, current literature is reviewed to document program support for improvement of service integration. In *Child Health*, Nurse-Family Partnership received an annual grant of over \$750,000 from First 5 Kern (Wang, 2014). James Heckman (2011), a Nobel Prize Laureate, recapped,

The Nurse-Family Partnership intervenes solely with at-risk first-time mothers during pregnancy, send nurses to the home regularly for the first two years of a child's life, and teachers mothering and infant-care skills. It promotes adult success of the children of disadvantaged mothers. (p. 35)

Inseparable from the early childhood monitoring is a systematic arrangement of child health services. For instance, “Because dental caries are one of the most frequent as well as debilitating and untreated chronic health conditions in children, access to dental care is an important indicator of access to health care” (Inkelas et al., 2003, p. x). Following a recommendation of the American Academy of Pediatric Dentistry (2013), Kern County Children's Dental Health Network extended dental care services since a child's first birthday. Montoya (2013) recollected,

Since its inception in 1999, the network has traveled to 2025 pre-schools and 285 elementary schools in 15 Kern County communities, where hygiene clinicians have provided oral health assessments to more than 30,000 children, administered 29,600 cleanings and fluoride treatments, and place over 15,000 sealants on first time molars. (p. 41).

In addition, child protection has been addressed by programs in *Family Functioning*. More specifically, First 5 Kern funded a Differential Response program. It was reported that

Kern's differential response program is an effective, research-based strategy to prevent abuse – an outstanding example of how Child Protective Services, the Kern County Network for Children, Clinica Sierra Vista and the Kernville Union, city of Taft and Richland School Districts are working to improve child safety. (Bakersfield Californian, 2010, ¶. 2)

The service integration is further expanded to a dozen programs of early childhood education that are co-sponsored by the state commission through its School-Readiness Initiatives (Golan, Spiker, & Sumi, 2005). “The Initiative is designed to identify service gaps, expand valuable existing programs, promote practices that best prepare children for school and support those families and communities with the greatest need in preparing their children for school” (First 5 Kern, 2016, ¶. 2).

Built on these direct supports in *Child Health*, *Family Functioning*, and *Child Development*, additional programs, such as 2-1-1 Kern County and the Medically Vulnerable Care Coordination Project (MVCCP), have been funded for service coordination. In particular, “2-1-1 is a free phone number and online database that connects Californians quickly and effectively to existing health and human service programs” (California 2-1-1, 2016, ¶. 1). By 2015, the monthly referral volume was close to 4800, adding up to more than 57,000 referral calls per year (Community Action Partnership Of Kern, 2016). The extensive service has not only earned its national accreditation from the Alliance of Information and Referral Systems, but also attracted partners of 2-1-1 Kern to expand its services in Kings, Tulare, Merced and Mariposa counties of California (Community Action Partnership of Kern, 2015).

In contrast, MVCCP was funded to support medically vulnerable children. In 2015, it was recognized as *Promising Practice* by the Association of Maternal & Child Health Programs for early identification and collaborative treatments of approximately 2,000 premature infants annually (Innovation Station, 2015). Generalization of the MVCCP model has been made beyond Kern County with external funding from the Lucile Packard Foundation (2014).

In summary, First 5 Kern funded programs with a proven track of records on community improvement. In considering program funding, the commission already set a “No Start-ups” requirement in its Request for Proposals (First 5 Kern, 2014). Based on an axiom that the whole could be larger than the sum of its parts, there is a need to examine the impact of service integration across programs. Accordingly, this investigation is designed to tackle the capacity of network building among programs, and a 4C model has been established from the literature to guide this empirical study.

## 6. Research questions

Accompanied with the state increase of minimum wage, service cost has been on rise in most programs. Under the pressure of shrinking tax revenue, specific steps were taken by First 5 Kern to solicit community input and ensure program alignment with local needs (see Harniman, 2009). In promoting quality and equity of the early childhood service, three research questions are developed to guide this investigation:

- (1) What is the impact of First 5 Kern funding on the partnership building among early childhood service providers?
- (2) What program factors influence the outcome of service integration?
- (3) How does the program outreach affect partnership buildings across different geographic locations?

## 7. Methods

With approval of an Institutional Review Board at California State University, interview data were gathered in person by the evaluation team to identify the number of links among programs in 2015. Forty program directors participated in the interview process. As an accountability measure, program support was represented by the percent of program budget funded by First 5 Kern. The service outreach was delineated by program offerings of transportation, home-based support, and referral service. In addition to the funding structure, program directors described strength of the ties with their collaborators according to the 4C model. Focus areas are identified to categorize 40 programs in *Child Health*, *Family Functioning*, and *Child Development* (Research Question 1).

By definition, “Systems of Care addresses system-wide structural supports which allow county commissions to effectively work towards achievement in the other three result areas of Family Functioning, Child Health and Development” (First 5 California, 2013, p. 40). Accordingly, variability of the network strength has been partitioned at *focus area* and *program* levels to guide incorporation of program factors that impact the outcome of service integration (Research Question 2).

Social Network Analysis (SNA) is a well-established research method to summarize the network building for strengthening equity of service delivery across different geographic locations. Provan, Veazie, Staten, and Teufel-Shone (2005) observed,

In the academic literature, network analysis has been used to analyze and understand the structure of the relationships that make up multi-organizational partnerships. But this tool is not well-known outside the small group of researchers who study networks, and it is seldom used as a method of assisting communities. (p. 603).

In last decade, the method has been implemented through incorporation of computer software packages, such as Netdraw, to support analyses of partnership capacities (Borgatti, 2002). In this study, Netdraw is adopted to depict the network links among service providers across different focus areas (Research Question 3). Model fit indices are computed to confirm the data support for the statistical modeling.

**8. Results**

While some programs had First 5 Kern as the single source to fund up to 100% of their budgets, collaborations with multiple agencies may help reduce the budget proportion to a level below 25%. The variation of First 5 Kern support was confirmed by interview data from 40 program directors (Fig. 1). As a result, the commission leadership in early childhood services was confirmed by its provision of more half the budget for 28 out of 40 programs across focus areas. In particular, First 5 Kern was acknowledged as the major funding source by eight programs in *Child Health*, 12 programs in *Family Functioning*, and eight programs in *Child Development* (Fig. 1).

Strength of the network link was assessed across 40 programs according to the 4C model. While the total number of connections added to 1,540, the *Co-Existing* category contained 921 connections, which was approximately 2.5 times of the partnerships at the *Collaboration* level, 4.9 times of the links at the *Coordination* level, and 12 times of the relationships at the *Creation* level. The pattern is portrayed in Fig. 2 to show a hierarchical structure of the partnership composition across the 4C taxonomy.

To guide incorporation of the program factors under the multilevel modeling, an Intra-Class Correlation (ICC) has been computed to indicate variability of the network strength among

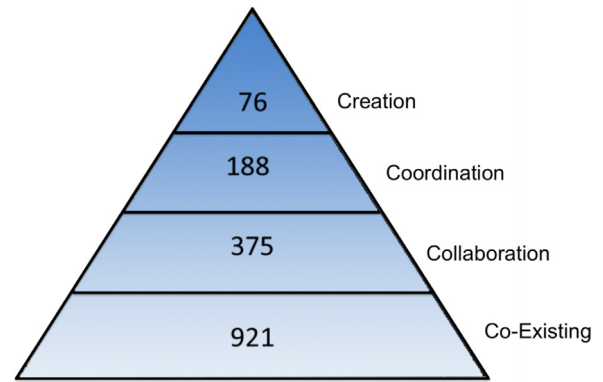


Fig. 2. Pyramid of Partnership Building across 4C Levels.

three focus areas and across 40 programs. Using the notation of Hierarchical Linear Model (HLM) (Raudenbush & Bryk, 2002), the ICC value depends on variances of the partnership strength at the focus area ( $\tau_{00}$ ) and program ( $\sigma^2$ ) levels:

$$ICC = \frac{\tau_{00}}{\tau_{00} + \sigma^2} = \frac{.02}{.02 + .76} = .023$$

The small ICC value indicates that the variation across focus areas does not account for a large portion of variability in the strength of partnership building (see O’Connell & Reed, 2012). This finding is consistent with the commission’s push for service integration across focus areas, as illustrated by programs at Family Resource Centers “that are designed to improve access to integrated information and to provide direct and referral services on site or through community outreach and home visitation” (Thompson & Uyeda, 2004, p. 14).

Built on the fact that much of the variability was allocated at the program level, explanatory variables are introduced to describe network strength among service providers. To enhance utility of the statistical modeling, Sloane (2008) suggested that “We change the basic research question from what works to what works for whom and in what contexts” (p. 43). In this investigation, Context features are reflected by the outreach efforts to address the needs of transportation, referral, and mobile service at the program level. The funding resources are incorporated in the *Input* phase according to the proportion of program budget sponsored by state tax (Fig. 1). Process of partnership building is demonstrated through program delivery, as indicated by the role of network initiation and participation (Table 2). Grounded on the platform of Context, Input, Process, and Product (CIPP), significant variables have been identified to describe the strength of partnership building (Table 2). To control for other variables not included in the CIPP model, the dependent variable of partnership strength is centered to suppress the intercept effect.

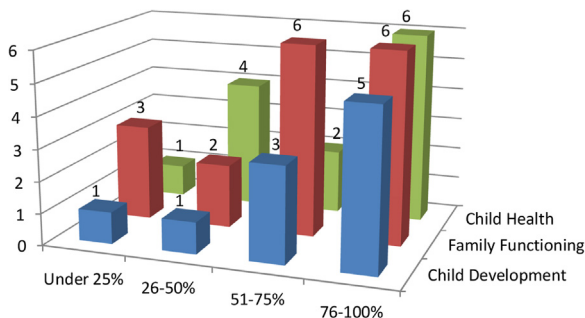


Fig. 1. Funding distribution across programs.

Table 2 Significant Factors of Network Strength at the Program Level.

Factor	Parameter	Standard Error	F	p
Funding	0.1805	0.0159	129.64	0.0001
Link Initiator	0.0428	0.0032	181.93	0.0001
Link Partner	0.0126	0.0036	12.14	0.0005
Center-based Parent Education	0.1888	0.0565	11.18	0.0008
Home-based Parent Education	-0.3309	0.0625	20.07	0.0001
Summer Bridge Program	0.1967	0.0694	8.03	0.0047
Home-based Childcare	-0.3151	0.0866	13.24	0.0003
Referral	0.2598	0.0610	18.13	0.0001
Transportation	-0.1808	0.0780	5.37	0.0206

With the CIPP factors as the independent variables in this regression analysis, Coefficient of Determination ( $R^2$ ) is employed to assess the model fit. Renaud and Victoria-Feser (2010) observed, “To assess the quality of the fit in a multiple linear regression, the coefficient of determination or  $R^2$  is a very simple tool, yet the most used by practitioners” (p. 1852). This statistic indicates how well the estimated regression line fits the actual data (Mahoney, 2014). The  $R^2$  value ranges between 0 and 1 to represent proportion of the outcome variation that has been explained by independent variables in the model. In this study,  $R^2$  value reached 0.79, much higher than most investigations in social sciences (Heeringa, West, & Berglund, 2010).

In addition, “Another statistic provided in determining the ‘best’ model is the  $C_p$  criterion” (Horsley, 2014, p. 1). The  $C_p$  criterion is in reference to the number of predictors (P) in the model. According to Colin Mallows (1973), the criterion developed, the value of  $C_p$  is expected to equal P. Deviation from the expected value suggests model biasness (Daniel & Wood, 1980). In Table 2, the number of parameters is 9 (i.e.,  $P=9$ ). The  $C_p$  index from this model also equals 9, which suggests unbiased prediction of the parameters (Ott, 1993).

Olbricht (2014) further advocated the  $C_p$  index for its parsimonious features. The use of  $C_p$  measure supports the simplest model that demonstrates consistent fit to the empirical database. With the result of  $C_p=P$ , parameter estimates in Table 2 composes a parsimonious model for explaining network strengths in the regression analysis.

Ramanadhan et al. (2012) pointed out, “Networks that are highly centralized can spread information and resources effectively from the influential members” (p. 3). Fig. 3 shows a highly centralized network among 40 programs beyond the Co-Existing level. Two of the central nodes represent Kern County Children’s Dental Health Network (KC\_Dental) and Children’s Mobile Immunization Program (CMIP) for offering mobile services in urban, suburban, and rural communities. The other central nodes belong to these programs that incorporate transportation services. Programs are differentiated in Fig. 3 across focus areas of *Child Health* (blue nodes), *Family Functioning* (olive nodes), and *Child Development* (brown nodes).

Krebs (2011) added that “Common wisdom in personal networks is ‘the more connections, the better.’ This is not always so. What really matters is where those connections lead to – and

how they connect the otherwise unconnected!” (¶. 4). Although Wind in the Willows (WIW) program has one link in Fig. 3, its partnership with KC\_Dental plays an indispensable role of dental services for children at the eastern border of Kern County.

In summary, the majority of programs recognized First 5 Kern as the major source of funding support. Despite the program affiliation in *Child Health*, *Family Functioning*, and *Child Development*, the service delivery is not mutually exclusive. As a result, this study indicated more variations in the partnership strength at the program level across different geographic locations. The partnership building has been examined from a network analysis to indicate its support for service access in remote communities.

## 9. Discussion

An analysis of the partnership strength naturally involves a multilevel data structure in which programs are nested within focus areas. However, the small ICC value suggested little variations in the partnership strength across focus areas, which supported a switch of the research emphasis on variable relations at the program level. As O’Connell and Reed (2012) pointed out,

In a two-level design, the ICC represents the proportion of total variance in the outcome that is captured by differences between the clusters or groups. When no variability is present between the clusters or groups, the value of the ICC is zero. (p. 6)

The lack of variability across focus areas reflected the fact that most programs at family resource centers were similar in their roles of jointly supporting health insurance enrollment, parent education, and child development. It is worth noting that some of the center-based programs have a limited capacity to project services in remote areas. Nonetheless, Miller and Votruba-Drzal (2013) noted that “Lower achievement for rural children was partly explained by less advantageous home environments” (p. 234). Remote communities inevitably need more home-based services and transportation supports. For instance, “For many working parents, hiring a caregiver to work in their home is the best solution for their child care and household needs” (Child Care Inc., 2012, p. 1). The difficulty of rural family outreach is partially reflected by the negative coefficients in Table 2 for indicating weaker partnership strength with home-based services and transportation support.

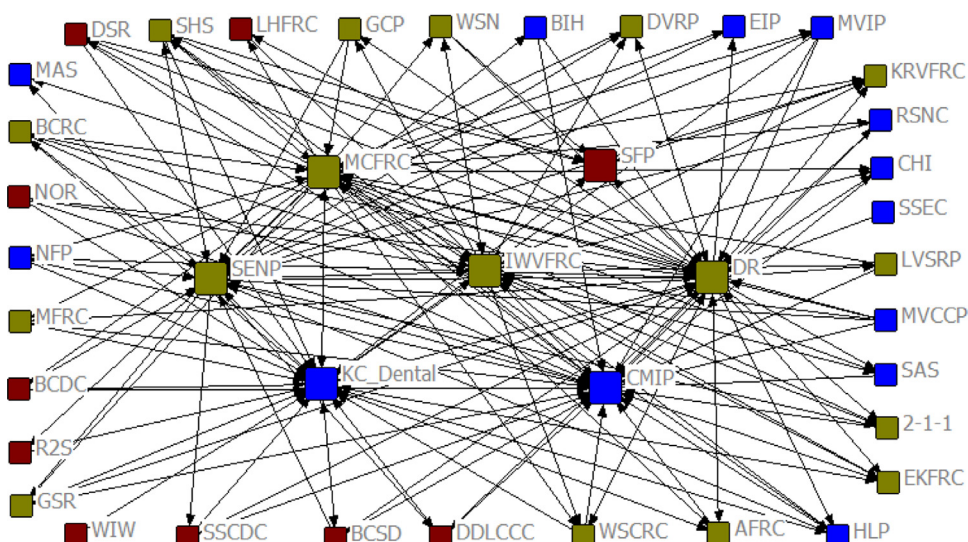


Fig. 3. Network Links Beyond Co-Existing Level.

Due to well-rounded needs in early childhood service, it may take a village to raise a child. Consequently, programs that included service referral, preschool preparation, and center-based support demonstrated stronger partnership building, as represented by positive regression coefficients in Table 2. For more specialized services beyond the capacity of family resource centers, it was confirmed from the interview of program directors that mobile services were offered by the Kern County Dental Health Network (KC\_Dental) and the Child Mobile Immunization Program (CMIP) to maintain oral healthcare and complete immunization in hard-to-reach areas. Meanwhile, the Indian Wells Valley Family Resource Center (IWWFRC) and Mountain Communities Family Resource Center (MCFRC) devoted resources to meet transportation needs for service access among residents of isolated communities. The Differential Responses (DR) program incorporated transportation support to manage 308 cases of child abuse and neglect across the county. Although “There is a paucity of research into the development of intersectoral collaborations designed to support early childhood development in rural communities” (John, 2010, p. 40), this investigation demonstrated the impact of program outreach in expanding the service network for traditionally underserved children.

In Fig. 3, the mobile service outreach was indicated by the centroids of KC\_Dental and CMIP for dental health and immunization supports. In Family Functioning, DR services were linked to several programs as another centroid for child protection. The partnership also supported a poverty area of southeast Bakersfield (see node SENP), as well as remote areas of South Fork, IWWFRC and MCFRC. Thus, equity of service access has been improved by the partnership pattern from this social network analysis.

In addition to the regression results in Table 2 and network findings in Fig. 3, the approach to assessing the model fit conforms to research convention. Heeringa et al. (2010) pointed out, analysts who are new to regression modeling of social science, education, or epidemiological data should not fret if the achieved  $R^2$  values are lower than those seen in their textbook training. Physicists may be disappointed with  $R^2 < 0.98$ – $0.99$  and chemists with  $R^2 < 0.90$ , but social scientists and others who work with human populations will find that their best regression model will often explain only 20%–40% of the variation in the dependent variable. (p. 194)

In this study,  $R^2$  value was 0.79, much higher than the range of 20%–40% indicated by Heeringa et al. (2010). Moreover, with the feature of  $C_p = p$  for an unbiased model (see Friendly, 2014), this investigation maintains a parsimonious feature for “getting a good model that contains as few variables as possible” (Olbricht, 2014).

It was suggested by the Council on Community Pediatrics (2009) that “Although much energy and research have gone into the development of home-visiting programs, the extent of potential benefits is still inadequately delineated and understood” (p. 598). Although this investigation contributed to the benefit clarification for children in rural areas through service networking, strength of the partnership building was measured by ranking data across Co-Existing, Collaboration, Coordination, and Creation levels. While some researchers supported the use of ordinal data in regression analyses (Carifio & Perla, 2008; Pell, 2005; Traylor, 1983; Warachan, 2011), Miller (1998) raised concerns on reporting parametric findings without the original data on an interval scale. Therefore, an inherent limitation should be noted for this investigation – To enhance accuracy in the outcome measurement, more research is needed to revise the 4C model on an interval scale.

In conclusion, both social network analyses and multilevel modeling have been applied in this study to examine the impact of First 5 Kern support on partnership building in early childhood services. Smith et al. (2009) observed that “While many entities purportedly provide care coordination, there is a lack of communication among the multiple agencies serving the same

child” (p. 7). Traditional cost-and-benefit analyses within each program cannot automatically address the capacity building for service integration (see VanGilder & Berri, 2011). As “the demands for First 5 funding has become more pressing because of a decline in other government funding for social services” (Branan, 2009, p. 1), this study revealed importance of the program outreach for partnership building across rural geographic locations. The county choice was also pertinent to early childhood research because “Kern County’s 254,000 resident children make it one of youngest counties in California” (Thygeson, 2016, p. 1). Due to the use of an ordinal scale to assess the partnership strength, significant factors from this study are subjected to verification by future investigations that incorporate a new measurement paradigm for service integration.

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